

**Notice of Allowability**

Application No.

10/807,770

Examiner

Nikita Wells

Applicant(s)

WHITE, NICHOLAS R.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Examiner's Amendment and Application filed 24 March 2004.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 030405.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 030305.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Nikita Wells  
Primary Examiner  
Art Unit: 2881

## DETAILED ACTION

### *Examiner's amendment* ✓

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Prahker on March 4, 2005.

The Examiner initiated an interview with the Applicant in order to make minor changes in notation in the Specification and claims 2 and 11 in order to remove any possible confusion. The changes are as follows:

In the Specification, on page 8:

On line 16, "(Y)" has been changed to --(a)--.

On line 18, "(ú)" has been changed to --(b)--.

In claim 2:

On line 16, "(Y)" has been changed to --(a)--.

On line 18, "(ú)" has been changed to --(b)--.

In claim 11:

On line 13, "(Y)" has been changed to --(a)--.

On line 15, "(ú)" has been changed to --(b)--.

*Allowable Subject Matter*

2. Claims 1-11 are allowed.

3, The following is an examiner's statement of reasons for allowance:

With respect to the independent claims 1, 2, 10, and 11, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, an ion implantation apparatus and method including a source for the generation of charged particles as a continuous ion beam irradiating a workpiece; a multipole coil array comprised of a support rod made of ferromagnetic material and at least two wire coils wound independently and positioned adjacently on said support rod, being wound to lie orthogonally to said support bar; a boundary plate presenting a planar surface which is positioned to lie parallel to and at a preset gap distance from said multipole coil array; and a circumscribed spatial passageway for applying a contiguous magnetic field having a customized magnetic field gradient to a continuous ion beam traveling therethrough, wherein said spatial passageway is dimensionally circumscribed in an x-axis direction by the length of said multipole coil array and in a y-axis direction by a preset gap distance separating said multipole array from said plane surface of said boundary plate, and wherein the degree of uniformity for the charged particles of a continuous ion beam becomes increased.

The dependent claims 3-9, are allowable by virtue of their dependence upon the independent claims 1 and 2.

*Drawings*

4. New corrected formal drawings are required in this application because the submitted drawings are not numbered consecutively starting with Figure 1 as required in

Art Unit: 2881

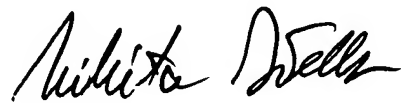
35 U.S.C. §1.84 (t). Figures A through E, 1A, and 1B, should be relabeled as 1, 2, 3, 4, 5, etc. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Benveniste et al. (6,835,930 B2), V.M. Benveniste (2003/0205683 A1), and Ye et al. (6,703,628 B2) disclose an ion implantation system using a ribbon ion beam which is mass analyzed and collimated for use in implanting one or more workpieces. H.F. Glavish (5,483,077) discloses a system and method for magnetic scanning, accelerating, and implanting a ribbon ion beam.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.
8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2881

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Nikita Wells". The signature is fluid and cursive, with the first name "Nikita" and last name "Wells" clearly distinguishable.

Nikita Wells, Primary Examiner  
Art Unit 2881  
March 4, 2005